

RAB Minutes

NAS North Island

Restoration Advisory Board

CTO-008

Subject: RESTORATION ADVISORY BOARD MEETING MINUTES

Wednesday, August 7, 1996

The twenty-eighth Restoration Advisory Board (RAB) meeting for Naval Air Station (NAS) North Island was held on Wednesday, August 7, 1996 in the Winn Room at the Coronado Public Library from 6:30 p.m. to 8:40 p.m.

Ms. Dottie Marron, Community Co-Chair for the NAS North Island RAB, called the meeting to order at 6:35 p.m. Ms. Marron began the meeting by welcoming RAB and community members.

Approval of Meeting Minutes from the May 22, 1996 RAB Meeting

The May 22, 1996 RAB meeting minutes were amended and approved with one abstention. The third sentence of the fourth bullet on page three was amended to read:

- "An Open House and a tour of NAS North Island will be held on June 15, 1996."

Approval of Meeting Minutes from June 26, 1996 RAB Meeting

The June 26, 1996 RAB meeting minutes were amended and approved with one abstention. The third sentence of the third bullet on page three was amended to state:

- Delete the sentence beginning with "The CEQA comment period has been extended..." The sentence will now read "A public hearing was held at which time comments were received by the department."
- The seventh bullet on page three was amended to reflect the actual cost of the credits. "The credits will be bought for a one time Fee of \$15,000 per ton. The plan is to buy nine tons, which would total \$135,000."

Ms. Marron noted that there were introductions to be made. Mr. Rafat Abbasi, Department of Toxic Substances Control (DTSC) Project Manager, introduced Ms. Alice Gimeno, who will be in charge of reporting issues on NAS North island, except for sites 9 and 11. Any questions the community may have should be directed to Ms. Gimeno. Ms.

Marron announced the departure of Liz Kanter, the Contractor providing community relations support services, and introduced her replacement, Lana Khoury. Ms. Marron then moved to the agenda.

Update on the Status of Groundwater at Site 9

Mr. Bill Collins, Southwest Division Naval Facilities Engineering Command (SWDIV) Team Leader, provided an update on the status of groundwater at Site 9, located near the Pier Bravo ammunition pier. His purpose was to show the modeling for the site, which was calculated to show that groundwater migrating off the base is not causing an adverse effect in the bay. The following is a summary of Mr. Collins' presentation :

- Ground water moves by a churning effect, in two directions: an inflow of salt water from the bay/ocean runs under the Site and some fresh water runs out of the Site.
- A tidal prism (one movement between high and low tide) was used to measure dilution. There's a few hours between high and low tide, and this happens approximately three times a day. (Actually there are two full tidal prisms per day, vice "three times a day," as originally indicated).
- Dilution by the Tidal Pumping Conceptual Model considers any volume of contaminant at the sediment/water interface. Groundwater moves in from the aquifer (small volume) and tidal water moves in from the bay (moderate volume). Both groundwater and tidal water move out to the bay (large volume).
- Dilution predicted by the Groundwater Flow Model follows that the dilution factor can be calculated by dividing the volume of groundwater by the volume of tidal prism.
- Ms. Marron was concerned about the time available to deal with problems on Site 9 (50 year travel time). Mr. Collins explained that the Site had been used since the 50's, when material was often discharged, and now (the 90's) this material can be measured.
- Mr. Doug Casey, SWDIV Remedial Project Manager, questioned the concentration in the closest well on Site 9. Mr. Collins replied that most of the well concentrations are below National Ambient Water Quality (NAWQ) standard numbers.
- Board member, Mr. Richard Dittbenner, and Mr. Cheng, of the Regional Water Quality Control Board (RWQCB) agreed that measurements taken from the wells closer to the shore would give more accurate impressions of the amount of contaminants discharged in the bay. The calculations currently presented assume the highest measured concentration. Both agreed that simple tests can be run to

see what the capacity of sediments would be to degrade present materials.

The above material was presented in the Remedial Investigation/RCRA Facility Investigation (RI/RFI) Addendum, sent out approximately one month ago. Since there have been comments received pertaining to the Addendum, Mr. Collins plans to meet on Friday August 9, 1996, with the California Regional Water Quality Control Board to answer more questions.

Therefore, the comment period for this report will be extended about ten more days. In order to answer all the questions remaining, Mr. Collins suggested a follow on presentation by the contractor who performed the investigation on Site 9.

Ms. Marron introduced Mr. Williamson of TOSC, which gives the RAB technical information on sites 9 and 11.

Update on Site 1- Shoreline Sediment Sampling

Ms. Kim Wheeler, (SWDIV) Remedial Project Manager for Site 1, provided a historical overview of the Site 1 outfalls. Ms. Wheeler also discussed the RI/RFI project objective, project schedule and project implementation.

- Site 1, Shoreline Sediments, was originally composed of 10 outfalls installed and used from 1917 through the early 1930's. The Site drained both industrial and residential areas on the north and east sides of NAS North Island. Between 1938 and 1945, six outfalls were added. These outfalls drained the western and southern portions of NAS North Island. Thus, IR Site 1 is comprised of these original 16 outfalls. As a result of past poor environmental practices, hazardous constituents were discharged through the original storm drain system. Industrial waste discharge ceased in 1972 with the construction of the Industrial Waste Treatment Plan (IWTP).
- For the purpose of the remedial investigation being conducted, 9 out of sixteen outfalls are included (ocean outfalls 1,2, and 16, and bay outfalls 3-8). Outfalls 9-15 are currently addressed as part of the Site 1 removal action, and therefore are not included in this investigation. The purpose of the remedial investigation project is to collect information from sediments around the proximity of the outfalls in order to determine contaminant levels

(chemistry and toxicity) and to determine if remedial/removal action(s) are necessary.

- The kick-off meeting between all teams for this project was held on April 1, 1996. All open issues with the Bioassay and Environmental Sampling and Analysis Plan (BESAP) were resolved. Samples were gathered in June 1996 and July 1996. Currently, the project is in the analysis and validation phase, which will continue through September 1996. A risk decision meeting is planned for mid-October

1996 to decide whether to do a hot spot removal, a Feasibility Study (FS) and full-blown Remedial Action (RA) or a No Further Response Action Planned (NFRAP), which would end in a Record of Decision (ROD) to close the site.

- A draft of RI/RFI report will be submitted for review on December 1, 1996.
- Ms. Wheeler introduced the rest of the Site 1 project team. The two members, Mr. Ken Richter-RDT&E Division (NRaD), and Ms. Cynda Maxon MEC Analytical Systems, Inc., are Marine Sediment Experts.

Overview of Sampling Design and Environment of Site 1

Mr. Richter provided an overview of the sampling design, bathymetry, and grain size. The following is a summary of Mr. Richter's discussion:

- Grain size is important in determining toxicity and contaminant absorption. The texture on Site 1 varies between coarse and fine (the finer the sand, the more organic material.)
- 5 surficial surface grabs have been done, in order to find gradients in the contaminants moving away from the outfalls. The positions of these stations are: 3 meters, 10 meters, 30 meters, 100 meters, and 150 meters away from the outfalls.
- A study of the Bay Protection and Toxic Cleanup Program initiated by the State Water Board, which tested for toxicity and chemistry, was referenced. Bioassays (tests involving marine plants, animals, and bacteria) are used to measure the effects of potential toxicity effects to the ecosystem.
- The following criteria were used when examining the database: 1. amphipods and polychaetes (shrimp-like burrowers and worms) were checked for survival greater than 75 percent and 2. Comparison of chemistry to Effects Range-Medium (ERM) (a criteria used to determine toxicity of sediments).
- Several stations were chosen to be used as potential reference sites. sites 1, 2, 3, 4, and 5 will be used to represent coarse grain and low organic carbon sediments , and sites 6, 7, 8, 14, and 15 will represent the finer material, and higher organic carbon sediments.

Overview of Sediment Chemistry of Site 1

Ms. Maxon provided an overview and slides pertaining to the sediment chemistry. The following is a summary of Ms. Maxon's presentation:

- Outfall 16 lies in a creek bed, which was dry, but is now filled up with water. A

barge was built to mount the coring device used to collect sediment to a depth of 10 feet. Forty surface samples were collected around bay outfalls 3 through 8.

- The chemicals looked for are United States Environmental Agency (U.S.EPA) priority pollutants (Semi-Volatile Organic Compounds (SVOC) and metals) as well as contamination associated with ship activity, Navy activity, and expansion of chemicals seen in previous investigations. These include: polynuclear aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB) (specifically, Aroclors). They are also looking for organotins (used in ship paints and antifouling compounds.)
- Volatile organics are sampled for in the surface sediments of outfall 3 only, because they were previously detected at the site. Full volatile organic analyses are also being done for the coring around outfalls 16, 1, and 2.
- The tests chosen for this investigation encompass a full range of different life stages. The most sensitive test is the 3-day pore water test. Pore water is the actual water in contact with the sediments.

Answering a question posed by Mr. Richard Mach, SWDIV Remedial Project Manager, Ms. Maxon explained that bioassays used were cultured in a laboratory, or brought from a reputable known supplier. The animals were put through a control test at the same time as the sediment was tested. At least 90 percent of the animals used must survive the control tests after 10 days for results to be valid.

Ms. Maxon continued:

- The surface sediments are collected by a surface grab tool that opens up, digs 10 centimeters deep, and then closes and brings up a grab.

Update on Sites 9 and 11 Removal Action

Mr. Mach updated the RAB on the status of sites 9 and 11. The following is an overview of Mr. Mach's statements:

- Site 11: shakedown of the system is in progress. All wells were installed, and all pipelines were hooked up. Site 9: mitigation measures were completed, seeds were collected, Owl nests were built on base, and the treatment system is now built. The wells will be installed this month.

Update for Additional Options

Mr. Roger Argus, from PRC, gave a presentation on the investigation for additional options that could decrease air emissions from the SVE off-gas treatment system. The

following is a brief of Mr. Argus' discussion:

Soil vapor extraction systems (carbon absorption systems) are being installed to remove solvents in the vadose zone. The current system is designed with a 99 percent recovery rate for contaminants. The question posed is whether there is a way to treat the 1 percent residual rather than purchase the emission reduction credits (ERC) to offset the emission.

- Nineteen alternatives were identified. Of the 19, five were deemed feasible. The five alternatives are: 1. Use ERCs. 2. Look at reinjection of the treated off-gas. 3. three different, above ground, treatment technologies: Thermatrix Padre system, 4. Photolytic Destruction Technology, and 5. carbon bed.
- Option 1 is the current approach. The cost for using the ERCs is \$165,000. SWDIV had already purchased 2 tons per year of ERCs under a separate project, so they only had to purchase another 9 tons.

Ms. Wheeler questioned whether the action memo and California Environmental Quality Act review (CEQA) would have to be redone in order to implement alternative 2. Mr. Abbasi volunteered to check on that, and said he didn't know if there would be substantial change to the document.

- Reinjection (option 2) is included in the system designed and is approximately \$34,000 worth of installed hardware and plumbing. Reinjection is already in the work plan for both sites. Therefore, alternative 2 has already been taken into account.

Ms. Wheeler suggested keeping the RAB aware of how much money and time will be spent to redo CEQA documentation

Mr. Argus continued with the alternatives :

- Option 3 will possibly achieve a 99 percent efficiency on 25 PPM extracted from the carbon system. The system would cost less than half a million dollars to own and operate for two years. Option 4, the technology that photochemically oxidizes the compounds, can achieve 99 percent removal efficiency, but possesses engineering issues with a cost of 2-3 times that of the ERC's. Alternative 5, carbon polishing, is also very expensive.

Based on the alternatives, Mr. Argus suggested the following:

- Since the current system is ready, an observational approach should be used to determine actual emissions. The recommendation is to report to the RAB what the actual emissions are, to look into efficiency optimization of the existing system, and try to lessen concerns.

Mr. Argus left copies of his detailed investigation for RAB members to review.

Mr. Mike Magee, Environmental Engineer for NAS North Island, stated that VOC emissions will be reported to DTSC in the mitigation monitoring plan report quarterly during the first year of operation, and will be shared with RAB members.

Question and Answer Period

Ms. Marron suggested tabling the review changes to the Mission Statement until the next meeting, due to lack of time. Ms. Marron then invited the RAB to continue with questions on sites 9 and 11.

Mr. Argus informed Mr. Kaupp that reinjection is already planned for on the two sites. Mr. Mach added that the concern when reinjecting air into the ground is how it will effect the contaminants already present. The only solution, is to monitor in a stepwise process to insure nothing is made worse. The air being reinjected is coming from the surface as well as the outside.

When questioned by Mr. Kaupp, Ms. Maxon relayed that 90 percent control survival rate overall for the bioassays on Site 1 investigation, and no more than 20 percent mortality in any one of five replicates, are the two criterion that establish a valid test.

Ms. Marron inquired about the next RAB meeting dates. Ms. Kanter suggested September 11th, October 24th, and November 13th. Ms. Marron agreed and added that for the next four months she will be in classes and not able to attend Wednesday meetings. The Navy is looking at other available dates in October and November.

Ms. Marcia Mingay, Public Participation Specialist for DTSC, learned that San Diego Naval Station had a very active subcommittee of their RAB that has been getting information on community outreach activities. She placed a sheet of ideas on the back table, so that they may be read and discussed at the next meeting.

Ms. Wheeler informed the RAB of a kick-off investigation meeting, held on June 18, 1996, concerning the follow-on investigation of the Site 10 Shoreline Slag area. She suggested holding a brief for the RAB on the reconnaissance survey in September or October. Ms. Marron agreed and recommended it as an agenda item.

The next RAB meeting has been scheduled for 11 September 1996 from 6:30 p.m. to 8:30 p.m. in the Winn Room at the Coronado Public Library.

Ms. Marron adjourned the meeting at 8:40 p.m.